

REMARKS:

This paper is herewith filed in response to the Examiner's final Office Action mailed on December 9, 2008 for the above-captioned U.S. Patent Application. This office action is a final rejection of claims 1-22 and 24-30 of the application.

More specifically, the Examiner has rejected claims 12-14 under 35 USC 112, first paragraph, as failing to comply with the written description requirement; rejected claims 1, 2, 8-9, 15-16, 19, and 24-25 under 35 USC 103(a) as being unpatentable over by Forssell (EP1006695) in view of Bender (US6,377,814) Soulabail (US20020071415), and Simard (US6,940,826); rejected claims 3 and 26 under 35 USC 103(a) as being unpatentable over Forssell in view of Bender, Soulabail, Simard, and further in view of Upp (US2004/0002351); rejected claims 4-5, 10, 20-21, and 27-28 under 35 USC 103(a) as being unpatentable over Forssell in view of Bender, Soulabail, Simard, and further in view of Lechleider (US6,058,109) and Rinchiuso (US2004/0196861); rejected claims 6, 11, and 29 under 35 USC 103(a) as being unpatentable over Forssell in view of Bender, Soulabail, Simard, Lechleider, Rinchiuso and in further view of Schieder (EP1139613); rejected claims 7 and 30 under 35 USC 103(a) as being unpatentable over Forssell in view Bender, Soulabail, Simard, and further in view of of Kajizaki (US2001/0055317); rejected claim 12 under 35 USC 103(a) as unpatentable over Forssell in view of Bender; rejected claim 13 under 35 USC 103(a) as being unpatentable over Forssell in view of Bender and further in view of Upp; rejected claim 14 under 35 USC 103(a) as being unpatentable over Forssell in view of Bender, and further in view of Kajizaki; rejected claims 17-18 under 35 USC 103(a) as being unpatentable over Forssell in view of Bender, Soulabail, Simard, and further in view of Schieder; and rejected claim 22 under 35 USC 103(a) as being unpatentable over Forssell in view of Bender and Simard. The Applicants respectfully traverse the rejections.

Claims 1, 8, 12, 15, 22, and 24 have been amended for clarification. Support for the amendments can be found at least in paragraph [0022] of the published application. No new matter is added.

Regarding the claim rejections under 35 USC § 112:

Claims 12 -14 have been rejected as the original specification, allegedly, does not describe post speech packets using the term “transferable” as in claim 12. The Applicants note that claim 12 has been amended to remove the phrase “which are transferable.” The Applicants submit that the rejections of claims 12-14 under 35 USC 112, first paragraph, are seen as overcome and the rejection should be removed.

Regarding the claim rejections under 35 USC § 103:

First, the Applicants submit disagreements with the proposed combination of the references as indicated in the rejections.

In the Office Action the Examiner rejects all claims as being obvious. The Examiner uses as the closest prior art EP 1 006 695 (Forssell), and combines Forssell with several other documents. In the Office Action the Examiner admits in several places that Forssell does not disclose “post-speech packets,” and compensates this deficiency by using several other documents, in particular Bender (US 6377814).

The Applicants propose a merely clarifying amendment in independent claims 1, 8, 12, 15, 22 and 24. Support for the amendments can be found at least in paragraph [0022] of the published application. The Applicants submit that these amendments do not require a new search, and the Examiner is respectfully requested to enter and consider these amendments in this Response to final Office Action.

The proposed amendment is made to even further distinguish the claimed invention from the “maximum-zero-traffic period” of Bender. By the proposed amendment the Applicants express that “post-speech packets” according to the invention are transmitted when the last speech sample has been detected (i.e., responsive to the detection of the last speech sample).

In Bender the “wireless network” keeps watch on a forward link data queue. If it is known that

the queue is empty when “the maximum-zero-traffic period” elapses then responsive to the “maximum-zero-traffic period” elapsing, the wireless network sends “a null data packet” to a terminal (Column 3 line 63 to column 4 line 10).

Independent claims 1, 8, 15, and 24 are rejected as being unpatentable over Forssell (EP 1006695) in view of Bender (US 6377814), Soulabail (US 2002/0071415) and Simard (US 6940826). Further, independent claim 22 has been rejected as being unpatentable over Forssell in view of Bender and Simard.

The present application discusses a packet switched system, a GPRS network. A GPRS networks functions like a simplex transmission system. All packet transmissions can be considered as one-way transmissions.

The present application discloses a method how to speed up an uplink connection establishment of a mobile terminal in a GPRS network (i.e. establishing a reverse transmission connection compared to the existing connection). This is accomplished by utilizing “a prolonged downlink” before the utilized downlink is released. In a method of the pending application, after the last actual downlink speech packet, “post-speech packets” according to the invention are transmitted to the downlink. This brings about that the temporary block flow (TBF) is not immediately released after the last actual speech packet. The downlink is released only after the last sent post-speech packet. The receiving mobile station can therefore utilize “the prolonged downlink” for establishing a new uplink if needed (in the reverse direction). This speeds up the uplink channel establishment considerably.

The document of Forssell discusses also a packet switched network (GPRS network). The object of Forssell is to keep an existing (one-way) connection in a packet switched network reserved so that a delay is avoided in re-establishing a previous connection, i.e. the connection has already existed. Forssell discusses about how to prolong a (one-way) connection in a packet switched network over silent (passive) periods in a delay sensitive communication system in an earlier used transmission direction (paragraph [0042]).

In paragraph [0045] it is disclosed that during allocating an uplink to a terminal, a downlink can also be allocated to the same terminal in a delay sensitive connection. So, in Forssell both the downlink and uplink are connected. They can be active and passive regardless of each other.

In the system of Forssell there appears to always exist knowledge of how long the silent (passive) period actually is. A value N (paragraphs [0051] and [0056]) defines how long the passive period will be. The transmitting terminal can independently define this value N which is transmitted to the network. Therefore, in Forssell there is a specific way to prolong or shorten the passive period if a need arises. It is also disclosed in Forssell that during a passive period the network assigns to the terminal, which is in the passive state, time slots now and then which the terminal can utilize for transmission of a message to the network. If the terminal wants to end or change the length of the passive period it transmits a message where it can define whether the silent period continues, an active period will start, or the temporary block flow can be released (paragraphs [0067] - [0077]). The mobile terminal utilizes CV' and TR bits (paragraphs [0067] - [0069]) and the network utilizes FBI indicator (paragraphs [0073] - [0075]) for informing the receiving party about the forthcoming condition.

Therefore, the Applicants submit that a use of "null data packets" as disclosed by Bender are not needed in Forssell, and clearly would not be needed for the reasons which the Examiner has expressed in the present Office Action on page 6.

Another reason not to use the "null data packets" of Bender is that it is against the teachings of Forssell. In paragraph [0040] it is stated that during a passive period of a terminal the radio resources of that terminal can be allocated to other terminals. This is advantageous because the radio channel is capacity limited. By doing so more users can utilize the one and same radio channel. Therefore, the Applicants submit that one objective of Forssell is to avoid any additional transmissions during passive periods. The Applicants submit that the "null data packets" of Bender represent unnecessary data which Forssell would seek to avoid. Sending surplus packets during the depicted passive period would waste transmission resources in the capacity limited

packet network, which is against the benefit of the packet switched network of Forssell. Therefore, a man skilled in the art would not be led to send any surplus packets in the system of Forssell during the passive period.

The secondary document (Soulabail) discloses a time division duplex (TDD) system which is functionally a circuit switched system (i.e., half-duplex system). The Examiner has identified "a variable guard time" in Soulabail, whose length can vary between the different transmission directions (downlink and uplink). The Applicants respectfully note that the GSM and GPRS standards define that physical downlink and uplink channels must utilize different frequencies. The Applicants submit that it is also evident that any additional guard times, (i.e., varying the guard times as in Soulabail), in a GPRS network, would limit the network's transmission capacity. The Applicants submit that for at least the reason of this contradiction, as stated above, a man skilled in the art would clearly not be motivated to utilize the "variable guard times" of Soulabail in the system of Forssell.

The third document Simard, relates to packet-based terminals which used for IP based voice communication over (cabled) packet-based networks. Simard depicts a talker selection algorithm whereby noise and latency problems can be decreased. This is done by selecting one talker as "a primary talker" and possible second talker as "a secondary talker." If no one is talking the depicted algorithm may send empty voice data packets continuously to all terminals within the voice conference as an alternative. The Applicants note that as the utilized transmission media (cabled IP network), of Simard, is not capacity limited, the depicted alternative procedure of sending empty voice data packets may be feasible. However, the Applicants respectfully submit that if the same principle were to be utilized in a capacity limited network (GPRS network) it would rapidly lead to lack of radio resources because all down links to the terminals would be active at the same time.

The Applicants submit that, for at least the reasons stated, a person skilled in the art would not be motivated to combine the references.

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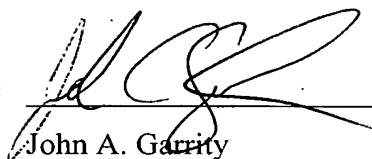
Independent claim 12 is rejected as being unpatentable over Forssell in view of Bender. The Applicants submit that for at least the reasons stated above, it is clear that a person of ordinary skill in the art would not be motivated to combine Forssell and Bender.

The Applicants respectfully submit that, for at least the reasons stated, even if the references were combined, which is not agreed to as proper, the combination still would not be seen to disclose or suggest the independent claims 1, 8, 12, 15, 22 and 24, and the rejections of these claims should be removed.

In addition, it is respectfully submitted that all dependent claims 2-7, 9-11, 13-14, 16-21, and 25-30 are allowable due to their dependence on an allowable independent claim 1, 8, 12, 15, and 24, respectively.

Based on the above explanations and arguments, it is clear that the references cited cannot be seen to disclose or suggest claims 1-22 and 24-30. The Examiner is respectfully requested to reconsider and remove the rejections of claims 1-22 and 24-30 and to allow all of the pending claims 1-22 and 24-30 as now presented for examination. Should any unresolved issue remain, the Examiner is invited to call Applicants' representative at the telephone number indicated below.

Respectfully submitted:


John A. Garrity

2/2/2009
Date

Reg. No.: 60,470

Customer No.: 29683

HARRINGTON & SMITH, PC

4 Research Drive

S.N.: 10/727,726
Art Unit: 2419



Shelton, CT 06484-6212

Telephone: (203)925-9400

Facsimile: (203)944-0245

email: jgarrity@hspatent.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450.

Feb. 2, 2009

Date

J. Dioniah
Name of Person Making Deposit